

What is claimed is:

1. A combination type damper comprising:

a cylinder provided with a receiving space having a certain depth at one
5 side thereof;

a rod relative-movably inserted into the receiving space of the cylinder;
and

a composite damping means for generating a damping force by an
electromagnetic force when a displacement of a relative movement of the cylinder
10 and the rod is less than a preset length, and for generating a frictional damping
force when the displacement of the relative movement is more than the preset
length.

2. The damper of claim 1, wherein the composite damping means
15 includes:

a guide bar provided at the rod;

a slider slidably inserted into the guide bar;

a frictional member coupled to the slider and adhered to an inner
circumferential surface of the cylinder; and

20 magnetic pairs for generating a repulsive force at the time of movement of
the slider.

3. The damper of claim 2, wherein the frictional damping force
between the frictional member and the inner circumferential surface of the cylinder
25 operates when the displacement of the relative movement of the cylinder and the

rod is more than a preset distance.

4. The damper of claim 2, wherein the magnetic pairs are composed of fixed side magnets coupled to the slider and movable side magnets coupled to the guide bar and the rod.

5. The damper of claim 4, wherein the fixed side magnets and the movable side magnets are arranged to face each other with respect to a direction of a relative movement of the cylinder and the rod.

6. The damper of claim 4, wherein the fixed side magnets and the movable side magnets are arranged to be overlapped and to face each other with respect to a direction of a relative movement of the cylinder and the rod.

7. The damper of claim 1, wherein the composite damping means includes:

a conductor guide provided at the rod;

a bobbin coupled to the outer circumferential surface of the conductor guide;

a conductor slider movably inserted into the bobbin;

a frictional member coupled to the conductor slider and adhered to an inner circumferential surface of the cylinder;

a winding coil wound on the bobbin and for generating a repulsive force by an electromagnetic force between the conductor guide and the conductor slider according to an applied current; and

magnetic pairs for inducing a repulsive pole between the conductor slider and the conductor guide.

8. The damper of claim 7, wherein the repulsive force generated
5 between the conductor guide and the conductor slider by the winding coil operates in proportion to a displacement of a relative movement.

9. The damper of claim 7, wherein the frictional damping force
between the frictional member and the inner circumferential surface of the cylinder
10 operates when the displacement of the relative movement of the cylinder and the rod is more than a preset distance.

10. The damper of claim 7, wherein a region of the winding coil corresponds to a length of the conductor slider.

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11. The damper of claim 7, wherein the conductor guide includes:
a guide portion having a certain outer diameter and a length;
a first disc portion coupled to the rod by being extendingly formed at one
side of the guide portion as a disc shape;
20 a second disc portion extendingly formed at another side of the guide portion as a disc shape; and
protrusion portions respectively protruding at one side surfaces of the first and second disc portions with facing each other.

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12. The damper of claim 7, wherein the magnetic pairs are composed

of fixed side magnets coupled to the conductor slider and movable side magnets coupled to the conductor guide.

13. A washing machine with a combination type damper including a cabinet having an inner space of a predetermined shape and a tub positioned inside the cabinet and containing washing water, comprising:

a cylinder provided with a receiving space having a certain depth at one side thereof and having another side coupled to a cabinet or a tub;

a rod of which one side is relative-movably inserted into the receiving space of the cylinder and another side is coupled to the cabinet or the tub; and

a composite damping means for generating a damping force by an electromagnetic force when a displacement of a relative movement of the cylinder and the rod is less than a preset length, and for generating a frictional damping force when the displacement of the relative movement is more than the preset length.

14. The damper of claim 13, wherein the composite damping means includes:

a guide bar provided at the rod;

a slider slidably inserted into the guide bar;

a frictional member coupled to the slider and adhered to the inner circumferential surface of the cylinder; and

magnetic pairs for generating a repulsive force at the time of movement of the slider.

15. The damper of claim 13, wherein the composite damping means includes:

a conductor guide provided at the rod;

a bobbin coupled to the outer circumferential surface of the conductor
5 guide;

a conductor slider movably inserted into the bobbin;

a frictional member coupled to the conductor slider and adhered to the
inner circumferential surface of the cylinder;

a winding coil wound on the bobbin and for generating a repulsive force by
10 an electromagnetic force between the conductor guide and the conductor slider
according to an applied current; and

magnetic pairs for inducing a repulsive pole between the conductor slider
and the conductor guide.